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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: Ralf Janke **GROUP:** 2857
SERIAL NO: 09/977,484 **EXAMINER:** Hal D. Wachsman
FILED: October 15, 2001
FOR: SENSOR SYSTEM WITH VARIABLE
SENSOR-SIGNAL PROCESSING

Commissioner of Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

AMENDED APPEAL BRIEF

This amended appeal brief is in response to the Notification of Non-Complaint Appeal Brief dated April 26, 2006. In addition, the undersigned attorney and Examiner Wachsman had a telephone conference on May 3, 2006 to clarify the issues identified in the Notification of Non-Complaint Appeal Brief.

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date below, with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Sarah L. Henry
Sarah L. Henry
5/3/06
Date

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I. REAL PARTY OF INTEREST

The real party of interest is Micronas GmbH of Freiburg Germany.

II. RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences.

III. STATUS OF CLAIMS

On December 14, 2005 the appellant appealed from the final rejection of claims 1-3 and 6-9 under 35 U.S.C. §103. Claims 1-3 and 6-9, which are set forth in Appendix A attached hereto, are all the remaining claims in this application. The rejection of claims 1-3 and 6-9 is being appealed.

IV. STATUS OF AMENDMENTS

An Amendment After Final was filed December 14, 2005 along with the Notice of Appeal. The proposed claim amendments set forth in the Amendment After final address the 37 C.F.R. §1.75(c) objections to the claims.

The Advisory Action Before the Filing of an Appeal Brief dated December 23, 2005 indicated that the minor claim amendments set forth in the Amendment After final had not been entered and would not be entered upon the filing of an Appeal Brief. In the Appeal Brief filed February 14, 2006, the undersigned presented arguments why the amendments set forth in the Amendment After Final should be entered. Upon consideration of those arguments as indicated

in the Notice of Non-Compliant Appeal Brief, the Examiner has now agreed to enter the amendments set forth in the Amendment After Final.

V. SUMMARY OF CLAIMED SUBJECT MATTER

The invention relates to a system for radio reception and telephoning in a motor vehicle.

Claim 1 recites a sensor system with variable sensor-signal processing. The various elements recited in claim 1 are discussed in the specification in at least the following locations, amongst others:

| FEATURES OF CLAIM 1 | SPECIFICATION |
|---|---|
| A sensor system with variable sensor-signal processing, comprising: | Page 7, line 7 |
| a integrated circuit sensor unit that includes | Page 9, line 7; FIGS. 1 & 2, element 10 |
| (i) a sensor element that provides a sensed signal in response to a measurement variable, and | Page 10, lines 8-12; FIG. 1, element 12 |
| (ii) a memory device that stores adjustable coefficient values; and | Page 9, line 21-Page 10, line 2; Page 11, lines 5-7; FIG. 1, element 26 |
| (iii) a sensor signal processing unit that processes said sensed signal using said adjustable coefficient values to provide a sensor output signal on a output line indicative of the measurement variable, | Page 9, line 21-Page 11, line 22; FIG. 1, element 25 |
| wherein said integrated circuit sensor unit receives updated adjustable coefficient values via said output line and stores said updated adjustable coefficient values in said memory device | Page 14, line 22-Page 16, line 13; FIG. 2, line OUT |

Claim 3 recites a sensor system with variable sensor-signal processing. The various elements recited in claim 3 are discussed in the specification in at least the following locations, amongst others:

| FEATURES OF CLAIM 3 | SPECIFICATION |
|---|---|
| A sensor system with variable sensor-signal processing, comprising: | Page 7, line 7 |
| a integrated circuit sensor unit that receives power via a first line and includes | Page 9, line 7; FIGS. 1 & 2, element 10 |
| (i) a sensor element that provides a sensed signal in response to a measurement variable, and | Page 10, lines 8-12; FIG. 1, element 12 |
| (ii) a memory device that stores adjustable coefficient values; and | Page 9, line 21-Page 10, line 2; Page 11, lines 5-7; FIG. 1, element 26 |
| (iii) a sensor signal processing unit that processes said sensed signal using said adjustable coefficient values to provide a sensor output signal on a second line indicative of the measurement variable, | Page 9, line 21-Page 11, line 22; FIG. 1, element 25 |
| wherein said integrated circuit sensor unit receives updated adjustable coefficient values via said first line and stores said updated adjustable coefficient values in said memory device. | Page 14, line 22-Page 16, line 13; FIG. 2, line OUT |

VI. GROUND OF REJECTION TO BE REVIEWED ON APPEAL

Whether claims 1-2 are obvious in view of the combined subject matter disclosed in U.S. Patent 5,150,301 to Kashiwabara (hereinafter “Kashiwabara”) in view of the alleged admission regarding the prior art (“APA”).

Whether claim 3 is obvious in view of the combined subject matter disclosed in Kashiwabara, APA and U.S. Patent 5,006,841 to Vines et al (hereinafter “Vines”).

VII. ARGUMENT

REJECTION UNDER 35 U.S.C. §103 – KASHIWABARA IN VIEW OF APA

CLAIMS 1-2

Claim 1 recites a sensor system with variable sensor-signal processing. The sensor system includes a integrated circuit sensor unit that includes:

“(i) a sensor element that provides a sensed signal in response to a measurement variable, and

(ii) a memory device that stores adjustable coefficient values; and

(iii) a sensor signal processing unit that processes said sensed signal using said adjustable coefficient values to provide a sensor output signal on a output line indicative of the measurement variable,

wherein said integrated circuit sensor unit receives updated adjustable coefficient values via said output line and stores said updated adjustable coefficient values in said memory device.” (emphasis added, cl. 1).

The integrated circuit sensor unit of claim 1 includes a sensor element that provides a sensed signal and a sensor signal processing unit that receives and processes the sensed signal using the adjustable coefficient values stored in the memory device to provide a sensor output signal that is indicative of the measurement variable sensed by the sensor element. That is, the sensor system provides the sensor output signal that is indicative of the measurement variable sensed by the sensor element.

The Official Action contends “*Kashiwabara et al. (Abstract, figure 1, col. 10, lines 16, 17) disclose ‘a sensor signal processing unit that processes said sensor signal ... to provide a sensor output signal on a output line indicative of the measurement variable.’*” (Official Action, pg. 3). It is respectfully submitted that this contention is based upon an improper reading of Kashiwabara. Specifically, no sensor (i.e., 2, 22, 28, 30 or 32) in Kashiwabara discloses providing a sensed signal that is processed within the integrated circuit sensor unit using coefficient values stored within a memory device, also located within the integrated circuit sensor

unit, to provide a sensor output signal that is indicative of the measurement variable. Kashiwabara does not disclose such processing within any of the sensor units. A fair and proper reading of Kashiwabara reveals that this prior art reference simply discloses scheduling a fuel injection amount T_i in response to a number of sensed signals. (see col. 5, line 32 – col. 6, line 10). In addition, none of the other prior art references discloses nor suggests a sensor that processes its sensed signal as set forth in claim 3.

The system of Kashiwabara neither discloses nor suggests that one of the sensors disclosed therein includes a sensor element that provides a sensed signal, which is processed within the sensor unit with coefficient values to provide a sensor output signal indicative of the measurement variable. Kashiwabara merely discloses a system for scheduling a fuel injection amount T_i based upon a number of sensed signals, including air flow, coolant temperature, et cetera. (see col. 5, line 32 – col. 6, line 10). The fuel injection amount T_i is of course not a signal indicative of sensed parameter (i.e., a measurement variable). In addition, a fair and proper reading of the other prior art references neither discloses nor suggests a sensor that processes its sensed signal as set forth in claim 1.

Accordingly, it is respectfully submitted that assuming for the moment, without admitting, that the prior art references are properly combinable as set forth in the Official Action, the resultant combination of Kashiwabara and APA is still incapable of rendering obvious the claimed invention.

REJECTION UNDER 35 U.S.C. §103 – KASHIWABARA IN VIEW OF APA AND VINES

CLAIM 3

It is respectfully submitted that claim 3 is patentable for at least all the same reasons as claim 1. Claim 3 recites a sensor system with variable sensor-signal processing. The sensor system includes:

“a integrated circuit sensor unit that receives power via a first line and includes

(i) a sensor element that provides a sensed signal in response to a measurement variable, and

(ii) a memory device that stores adjustable coefficient values; and

(iii) a sensor signal processing unit that processes said sensed signal using said adjustable coefficient values to provide a sensor output signal on a second line indicative of the measurement variable,

wherein said integrated circuit sensor unit receives updated adjustable coefficient values via said first line and stores said updated adjustable coefficient values in said memory device.” (emphasis added, cl. 3).

The Official Action contends “*Kashiwabara et al. (Abstract, figure 1, col. 10, lines 16, 17) disclose ‘a sensor signal processing unit that processes said sensor signal ... to provide a sensor output signal on a second line indicative of the measurement variable’.*” (Official Action, pg. 4).

It is respectfully submitted that this contention is based upon an improper reading of Kashiwabara. Specifically, no sensor (i.e., 2, 22, 28, 30 or 32) in Kashiwabara discloses providing a sensed signal that is processed within the sensor unit using coefficient values stored within a memory device, also located within the sensor unit, to provide a sensor output signal that is indicative of the measurement variable. Kashiwabara does not disclose such processing within any of the sensor units. A fair and proper reading of Kashiwabara reveals that this prior art reference simply discloses scheduling a fuel injection amount T_i in response to a number of

sensed signals. (see col. 5, line 32 – col. 6, line 10). In addition, none of the other prior art references discloses nor suggests a sensor that processes its sensed signal as set forth in claim 3.

Therefore, assuming for the moment without admitting, that the prior art references are properly combinable as set forth in the Official Action, the resultant combination of Kashiwabara, APA and Vines is still incapable of rendering obvious claim 3 since there is no teaching nor suggestion of a sensor that processes its sensed signal as set forth in claim 3.

CONCLUSION

For all the foregoing reasons, we submit that the rejection of claims 1-3 and 6-9 is erroneous and reversal thereof is respectfully requested.

If there are any additional fees due in connection with the filing of this appeal brief, please charge them to our Deposit Account 50-3381. If a fee is required for any extension of time under 37 C.F.R. §1.136 not accounted for above, such an extension is requested and the fee should be charged to the above Deposit Account.

Respectfully submitted,

A handwritten signature in cursive script, reading "Patrick J. O'Shea", written over a horizontal line.

Patrick J. O'Shea
Reg. No. 35,305
O'Shea, Getz & Kosakowski, P.C.
1500 Main Street, Suite 912
Springfield, MA 01115
(413) 731-3100, Ext. 102

CLAIMS APPENDIX

1.(Previously Presented) A sensor system with variable sensor-signal processing, comprising:

a integrated circuit sensor unit that includes

(i) a sensor element that provides a sensed signal in response to a measurement variable, and

(ii) a memory device that stores adjustable coefficient values; and

(iii) a sensor signal processing unit that processes said sensed signal using said adjustable coefficient values to provide a sensor output signal on a output line indicative of the measurement variable,

wherein said integrated circuit sensor unit receives updated adjustable coefficient values via said output line and stores said updated adjustable coefficient values in said memory device.

2.(Previously Presented) The sensor system of claim 1, further comprising an analytical unit that receives said sensor output signal and provides said updated adjustable coefficient values.

3.(Previously Presented) A sensor system with variable sensor-signal processing, comprising:

a integrated circuit sensor unit that receives power via a first line and includes

(i) a sensor element that provides a sensed signal in response to a measurement variable, and

(ii) a memory device that stores adjustable coefficient values; and

(iii) a sensor signal processing unit that processes said sensed signal using said adjustable coefficient values to provide a sensor output signal on a second line indicative of the measurement variable,

wherein said integrated circuit sensor unit receives updated adjustable coefficient values via said first line and stores said updated adjustable coefficient values in said memory device.

4.(Cancelled)

5.(Cancelled)

6.(Previously Presented) The sensor system of claim 2, wherein said adjustable coefficient values can be transmitted by the change of an output load (I_{load}) on said output line between said sensor signal processing unit and said analytical unit.

7.(Previously Presented) The sensor system of claim 6 wherein the output load (I_{load}) is continuously variable.

8.(Previously Presented) The sensor system of claim 6, wherein the output load (I_{load}) is stepwise variable.

9.(Previously Presented) The sensor system of claim 3, wherein said updated adjustable coefficient values can be transmitted to said integrated circuit sensor unit by changing a supply voltage (U_s) on said first line for said sensor unit.

10.(Cancelled)

11.(Cancelled)

12.(Cancelled)

13.(Cancelled)

14.(Cancelled)

15.(Cancelled)

16.(Cancelled)

17.(Cancelled)

18.(Cancelled)

19.(Cancelled)

20.(Cancelled)

EVIDENCE APPENDIX

None

RELATED PROCEEDINGS APPENDIX

None